

**Current Mode PWM Controller 0.25V to 1.52V 90A 40-Pin
TQFN EP T/R****Manufacturer:** [Renesas Technology Corp](#)**Package/Case:** QFN40**Product Type:** Power Management ICs**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active

Images are for reference only

[Inquiry](#)**General Description**

The ISL95836 Pulse Width Modulation (PWM) controller IC provides a complete solution for IMVP-7/VR12™compliant microprocessor and graphic processor core power supplies. It provides the control and protection for two Voltage Regulators (VRs). The first VR, typical for Vcore, incorporates 2 integrated drivers and can operate in 3-, 2- or 1-phase configurations. The second VR, typical for graphics, incorporates 1 integrated driver and can operate in 2- or 1-phase configurations. The two VRs share a serial control bus to communicate with the CPU and achieve lower cost and smaller board area compared with the two-chip approach. Both VRs utilize Intersil's Robust Ripple Regulator R3 Technology™. The R3 modulator has numerous advantages compared to traditional modulators, including faster transient response, variable switching frequency during load transients, and improved light load efficiency due to its ability to automatically change switching frequency. The ISL95836 has several other key features. Both outputs support either DCR current sensing with a single NTC thermistor for DCR temperature compensation, or more precise resistor current sensing if desired. Both outputs come with remote voltage sense, programmable VBOOT voltage, IMAX, and switching frequency, adjustable overcurrent protection and separate Power-Good signals.

Key Features

Serial Data Bus

Dual Outputs:

Configurable 3-, 2- or 1-phase for the 1st Output Using Two Integrated Gate Drivers

Configurable 2- or 1-phase for the 2nd Output Using One Integrated Gate Driver

R3 Modulator

Excellent Transient Response

High Light Load Efficiency

0.5% System Accuracy Over-Temperature

Supports Multiple Current Sensing Methods

Lossless Inductor DCR Current Sensing

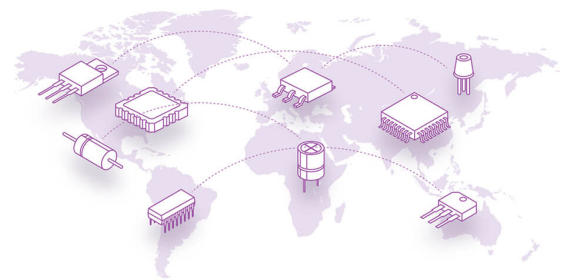
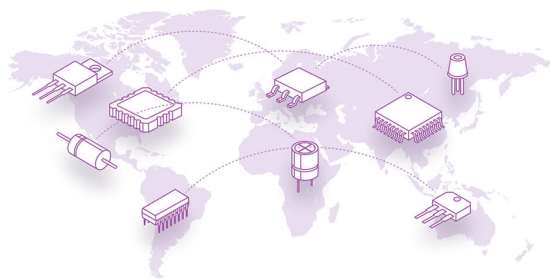
Precision Resistor Current Sensing

Differential Remote Voltage Sensing

Programmable V_{BOOT} Voltage at Start-up

Resistor Programmable I_{MAX} , Switching Frequency for Both Outputs

Adaptive Body Diode Conduction Time Reduction



Recommended For You

ISL83202IBZ

Renesas Technology Corp
SOP16

ISL9492ERZ

Renesas Technology Corp
QFN

ISL6520ACBZ-T

Renesas Technology Corp
SOP8

ISL62883CHRTZ

Renesas Technology Corp
QFN

ISL95837HRZ-T

Renesas Technology Corp
QFN40

ISL95837HRZ

Renesas Technology Corp
QFN40

ISL9301HRZ

Renesas Technology Corp
DFN10

ISL95835HRZ

Renesas Technology Corp
QFN

ISL95812HRZ

Renesas Technology Corp
QFN

ISL95870HRUZ-T

Renesas Technology Corp
QFN16

ISL6521IBZ

Renesas Technology Corp
SOP16

ISL62882CHRTZ

Renesas Technology Corp
QFN

ISL95870BIRZ-T

Renesas Technology Corp
QFN20

ISL78214ARZ

Renesas Technology Corp
QFN

ISL88739HRZ

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